## **EAST Search History**

## **EAST Search History (Prior Art)**

Ref#	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	1	("20040086752").PN.	US-PGPUB; USPAT	OR	OFF	2011/07/11 11:45
L5	1	"20040086752" and nm	US-PGPUB; USPAT	ADJ	ON	2011/07/11 11:46
S1	50	("4928291" "5328524" "5459326" "5541418" "5703377" "5725914" "5736464" "5814194" "5814562" "5821175" "5900633" "6055387" "6204201" "6207282" "6548899" "6641937" "6972459" "7396745" "7405394" "7410890" "7420189" "20010000415" "20020060381" "20050202657" "20050277246" "20050277246" "20060043317" "20060043317" "20060278611" "20070227879" "20070259605" "20080245974" "20080315128" "20080025761" "4631165" "5577092" "4273613" "4274921" "4504371" "4575546" "4575545" "4622204" "4760122" "4794087" "4816207" "4909914" "4918710" "4944961" ).pn.	US-PGPUB; USPAT	OR	ON	2009/06/15
S2	1	("6375790").PN.	US-PGPUB; USPAT	OR	OFF	2009/06/15 17:19
S3	1	("6624081").PN.	US-PGPUB; USPAT	OR	OFF	2009/06/15 17:23

<b>S</b> 4	9	jp-2004253437-\$.did. or jp-2003188156-\$.did. or jp-2003505867-\$.did. or jp-2001284252-\$.did. or jp02000316-\$.did. or wo-01048794-\$.did. jp-07058089-\$.did. or jp-08120470-\$.did. or jp-08293483-\$.did. or jp-2003086865-\$.did. or wo-03048407-\$.did. or wo-0141181-\$.did.	DERWENT	ADJ	ON	2009/06/15 17:27
S5	1	("6858512").PN.	US-PGPUB; USPAT	OR	OFF	2009/06/15 17:39
S6	2	09/820140.app.	US-PGPUB; USPAT	ADJ	ON	2009/09/08 17:36
S7	1	("5020411").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/03 14:03
S8	523	204/192.34.ccls.	US-PGPUB; USPAT	ADJ	ON	2010/03/03 15:41
S9	278	204/192.34.ccls. and (angle or ngled or angling)	US-PGPUB; USPAT	ADJ	ON	2010/03/03 15:43
S10	279	204/192.34.ccls. and (angle or angled or angling)	US-PGPUB; USPAT	ADJ	ON	2010/03/03 15:49
S11	240	204/192.34.ccls. and (angle or angled or angling) and (direction or position)	US-PGPUB; USPAT	ADJ	ON	2010/03/03 15:49
S12	1	("20020068132").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/15 09:23
S13	2	(("6676989") or ("20030073314")).PN.	US-PGPUB; USPAT	OR	OFF	2010/03/15 10:26
S14	1985	cluster with ion with beam	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:41
S15	301	S14 and (sputter or sputering)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:41
S16	1527	S14 and (sputter or sputtering)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:42
S17	363	S16 and ((ar or argon) with (ion or atom or monomer))	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:49
S18	237	S17 and (angle or angled)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:50
S19	106	S16 and ((ar or argon) with (ion or atom or monomer) with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:51
S20	237	S18 and (angle or angled)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:51
S21	72	S19 and (angle or angled)	US-PGPUB; USPAT	ADJ	ON	2010/03/15 10:51
S22	1	("3156090").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/15 11:26

S23	1	10/346457.app.	US-PGPUB; USPAT	ADJ	ON	2010/03/15 11:26
S24	2	(("5459326") or ("6375790")).PN.	US-PGPUB; USPAT	OR	OFF	2010/03/15 11:27
S25	79	(smooth or smoothing or clean or cleaning) and (cluster with ion with beam)	JPO; DERWENT	ADJ	ON	2010/03/15 11:31
S26	4	(smooth or smoothing or clean or cleaning) and (cluster with ion with beam) and (angle or angled)	JPO; DERWENT	ADJ	ON	2010/03/15 11:31
S27	3	(gas with monomer with beam) and (cluster with ion with beam)	JPO	ADJ	ON	2010/06/25 13:16
S28	0	(gas with monomer with beam) and (cluster with ion with beam) and (smoothing or smoothed)	JPO	ADJ	ON	2010/06/25 13:17
S29	35	(gas with monomer with beam) and (cluster with ion with beam) and (smoothing or smoothed)	US-PGPUB; USPAT	ADJ	ON	2010/06/25 13:17
S30	35	(gas with monomer with beam) and (cluster with ion with beam) and (smoothing or smoothed) and (ar or argon or inert or noble)	US-PGPUB; USPAT	ADJ	ON	2010/06/25 13:17
S31	545	gas with cluster with (ion or beam or etch\$3 or mill\$3)	JPO; DERWENT	ADJ	ON	2010/09/02 10:36
S32	33	S31 and (angle or angled)	JPO; DERWENT	ADJ	ON	2010/09/02 10:36
S33	1	2007-067985.NRAN.	DERWENT	ADJ	ON	2010/09/02 10:44
S34	18988	cho.in.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:48
S35	0	(cho near SungYoon).in.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:49
S36	1104	(cho near Sung).in.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:49
S37	0	(cho near Sung).in. and (gas with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:49
S38	25	(cho near Sung).in. and cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:49
S39	1607	gas with cluster with (ion or beam or etch\$3 or mill\$3)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:54
S40	653	S39 and (angle or angled)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:54
S41	92	S39 same (angle or angled)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 10:54

S42	2	(("5459326") or ("6375790")).PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 10:55
S43	2	10/144919.app.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 11:20
S44	0	("2003064198").PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 11:29
S45	1	("20030064198").PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 11:29
S46	1	wo-0236514-\$.did.	DERWENT	ADJ	ON	2010/09/02 11:31
S47	1	2002-681426.NRAN.	DERWENT	ADJ	ON	2010/09/02 11:31
S48	1	("6777030").PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 11:32
S49	0	(linear near1 ion near1 beam) and (gas near1 cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:03
S50	0	(closed near1 drift near1 ion) and (gas near1 cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:04
S51	1	(closed with drift with ion) and (gas with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:04
S52	1	(diffused with beam) same (gas with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:06
S53	2	10/238052.app.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:09
S54	3	(diffused with ion) same (gas with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 12:09
S55	64	("20020081378"   "3682528"   "4152188"   "4782216"   "4820902"   "4898789"   "4965121"   "5332888"   "5377045"   "5378527"   "5443669"   "5443862"   "5472566"   "5508092"   "5508368"   "5514476"   "5518595"   "5521765"   "5557462"   "5563734"   "5580419"   "5635245"   "5653812"   "5744400"   "5858477"   "5888593"   "6002208"   "6059909"   "6086774"   "6130012"   "6236543"   "6261672"   "6261693"   "6277480"   "6280834"   "6280847"   "6312808"   "6335086"   "6338901"   "6359388"   "6368664"   "6395333").PN. OR ("6808606").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/09/02

S56 S57	42	("20020081378"   "3682528"   "4152188"   "4782216"   "4820902"   "4898789"   "4965121"   "5332888"   "5377045"   "5378527"   "5443669"   "5443862"   "5472566"   "5508092"   "5508368"   "5514476"   "5518595"   "5521765"   "5557462"   "5563734"   "5580419"   "5635245"   "5653812"   "5744400"   "5858477"   "5888593"   "6002208"   "6059909"   "6086774"   "6130012"   "6236543"   "6261672"   "6261693"   "6277480"   "6280834"   "6280847"   "6312808"   "6359388"   "6338901"   "6359388"   "6368664"   "6395333").PN. OR ("6808606").URPN. and (gas with cluster)	US-PGPUB; US-PGPUB;	ADJ	ON O	2010/09/02 12:21 2010/09/02
		"3682528"   "4152188"   "4782216"   "4820902"   "4898789"   "4965121"   "5332888"   "5377045"   "5378527"   "5443669"   "5443862"   "5572566"   "5508092"   "5508368"   "5514476"   "5518595"   "5521765"   "5557462"   "5563734"   "5580419"   "5635245"   "5653812"   "5744400"   "5858477"   "5888593"   "6002208"   "6059909"   "6086774"   "6130012"   "6236543"   "6261672"   "6261693"   "6277480"   "6280834"   "6280847"   "6312808"   "6359388"   "6368664"   "6395333").PN. OR ("6808606").URPN. and (gas near1 cluster)	USPAT; USOCR			12:21
S58	4	(("20070259605") or ("20080142480") or ("20090017257") or ("20090233192")).PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 14:14
S59	0	jp-2003505891-\$.did.	JPO	ADJ	ON	2010/09/02 14:15
S60	2	wo-2006082751-\$.did. or wo-0236514-\$.did.	DERWENT	ADJ	ON	2010/09/02 14:17

S61	27	diffused near1 ion near1 beam	US-PGPUB; USPAT	ADJ	ON	2010/09/02 14:59
S62	2	S61 and cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:01
S63	9	diffuse near1 ion near1 beam	US-PGPUB; USPAT	<b>A</b> DJ	ON	2010/09/02 15:02
S64	9	toyoda.in. and (cluster with ion)	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:07
S65	0	(diffuse near1 ion near1 beam) with cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:09
S66	0	(diffuse near1 ion near1 beam) same cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:09
S67	0	(diffused near1 ion near1 beam) same cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:09
S68	2	diffused with ion with beam with cluster	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:09
S69	1	2001-529490.NRAN.	DERWENT	ADJ	ON	2010/09/02 15:16
S70	1	("6486478").PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 15:16
S71	918	cluster with (gas or ion)	JPO	ADJ	ON	2010/09/02 15:18
S72	40	S71 and (angle or angled or incline or inclined)	JPO	ADJ	ON	2010/09/02 15:18
S73	2	S72 and (smooth\$3 or etch \$3 or mill\$3)	JPO	ADJ	ON	2010/09/02 15:19
S74	5	(cluster with (ion or gas)) and (smooth\$3 or etch\$3 or mill\$3) and toyoda	JPO	ADJ	ON	2010/09/02 15:24
S75	135	(cluster with (ion or gas)) and (smooth\$3 or etch\$3 or mill\$3) and toyoda	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:31
S76	5	(cluster with (ion or gas)) and (smooth\$3 or etch\$3 or mill\$3) and toyoda.in.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:33
S77	50	(NACHI with FUJIKOSHI).as.	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:43
S78	0	(NACHI with FUJIKOSHI).as. and (cluster with (ion or gas))	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:44
S79	0	(NACHI with FUJIKOSHI).as. and (cluster with (ion or gas or beam))	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:44
S80	0	(NACHI with FUJIKOSHI).as. and (cluster with (ion or gas or beam or etch\$3 or smooth \$3 or mill\$3))	US-PGPUB; USPAT	ADJ	ON	2010/09/02 15:45
S81	3	(("6280875") or ("6558836") or ("7211351")).PN.	US-PGPUB; USPAT	OR	OFF	2010/09/02 16:46

S82	1	("20040086752").PN.	US-PGPUB; USPAT	OR	OFF	2010/10/22 14:33
S83	1	("20040086752").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/18 16:29
S84	2	wo-03001614-\$.did.	DERWENT	ADJ	ON	2010/11/18 16:33
S85	1	2003-167612.NRAN.	DERWENT	ADJ	ON	2010/11/18 16:33
S86	1	10/573942.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/18 17:34
S87	1	10/693283.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/18 17:43
S88	1	("4395465").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/18 17:47
S89	3	(("20020068132") or ("6535362") or ("6245450")). PN.	US-PGPUB; USPAT	OR	OFF	2010/11/18 17:48
S90	288	gcib	US-PGPUB; USPAT	ADJ	ON	2010/11/18 17:51
S91	7	gcib	JPO	ADJ	ON	2010/11/18 17:51
S92	141	gcib same (angle or angled or angling)	US-PGPUB; USPAT	ADJ	ON	2010/11/18 17:57
S93	1	("20060278611").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/18 18:04
S94	1	("6624081").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/18 18:16
S95	2	wo-0236514-\$.did. or wo- 2006082751-\$.did.	DERWENT	ADJ	ON	2010/11/19 11:00
S96	0	("2003064198").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/19 11:01
S97	1	("20030064198").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/19 11:01
S98	2	10/238052.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/19 11:02
S99	2	10/773234.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/19 11:08
S100	15	("20010033128"   "4381453"   "4700077"   "4786814"   "4929840"   "4943728"   "5091655"   "5814194"   "6375790").PN. OR ("6624081").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/11/19 11:40
S101	288	gcib	US-PGPUB; USPAT	ADJ	ON	2010/11/19 11:43
S102	141	gcib same (angle or angled or angling)	US-PGPUB; USPAT	ADJ	ON	2010/11/19 11:43
S103	147	S101 not S102	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/11/19 11:43

S104	433	gas with cluster with beam	JPO; DERWENT	ADJ	ON	2010/11/19 11:47
S105	372	gas with cluster with ion with beam	JPO; DERWENT	ADJ	ON	2010/11/19 11:47
S106	32	S105 and (angl\$3 or inclin\$3 or tilt\$3 or oblique)	JPO; DERWENT	ADJ	ON	2010/11/19 11:47
S107	1	("6743481").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/19 11:49
S108	1	("7812451").P <b>N</b> .	US-PGPUB; USPAT	OR	OFF	2010/11/19 11:57
S109	2634	cho.in. and (HYNIX SEMICONDUCTOR).as.	US-PGPUB; USPAT; JPO; DERWENT	ADJ	ON	2010/11/19 11:58
S110	1	S109 and (gas with cluster)	US-PGPUB; USPAT; JPO; DERWENT	ADJ	ON	2010/11/19 11:59
S111	1	S109 and (ion with cluster)	US-PGPUB; USPAT; JPO; DERWENT	ADJ	ON	2010/11/19 11:59
S112	1	S109 and (beam with cluster)	US-PGPUB; USPAT; JPO; DERWENT	ADJ	ON	2010/11/19 11:59
S113	1	2007-067985.NRAN.	DERWENT	ADJ	ON	2010/11/19 12:00
S114	1	("20020001680").PN.	US-PGPUB; USPAT	OR	OFF	2010/11/19 12:11
S115	2	09/871004.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/19 12:28
S116	24	("20020031615"   "20030031619"   "200300112564"   "4503125"   "4641841"   "5316636"   "5374463"   "5447796"   "5538763"   "5558903"   "5744399"   "5744431"   "5876790"   "5886854"   "6017630"   "6045596"   "6479111"   "6586069").PN. OR ("6743481").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/11/19 12:28
S117	1	12/312203.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/19 12:56
S118	1	10/573942.app.	US-PGPUB; USPAT	ADJ	ON	2010/11/22 10:48
S119	3	(("5879808") or ("5814194") or ("5459326")).PN.	US-PGPUB; USPAT	OR	OFF	2010/12/03 16:25
S120	15	("20010033128"   "4381453"   "4700077"   "4786814"   "4929840"   "4943728"   "5091655"   "5814194"   "6375790").PN. OR ("6624081").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:25

S121	2	09/969559.app.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:31
S122	1	09/461148.app.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:32
S123	35	("4120700"   "4147573"   "4381453"   "4440108"   "4661712"   "4687939"   "4700077"   "4717829"   "4786814"   "4929840"   "4943728"   "4994674"   "5091655"   "5177366"   "5459326"   "5814194"   "5879808").PN. OR ("6331227").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:33
S124	2166	438/710.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:57
S125	458	438/710.ccls. and angle	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/03 16:57
S126	3	(gcib or (gas with cluster with (beam or ion))) same (scan or scanned or scanning)	JPO	OR	ON	2010/12/06 11:44
S127	2	09/835120.app.	US-PGPUB; USPAT	ADJ	ON	2010/12/06 11:54
S128	0	kr-200603660-\$.did.	DERWENT	ADJ	ON	2010/12/06 12:10
S129	1	2007-067985.NRAN.	DERWENT	ADJ	ON	2010/12/06 12:13
S130	49379	(Hynix with Semiconductor). as.	US-PGPUB; USPAT; JPO; DERWENT	ADJ	ON	2010/12/06 12:14
S131	7525	(Hynix with Semiconductor). as.	US-PGPUB; USPAT	ADJ	ON	2010/12/06 12:15
S132	1	(Hynix with Semiconductor). as. and (gas with cluster)	US-PGPUB; USPAT	ADJ	ON	2010/12/06 12:15
S133	12	(gcib or (gas with cluster with (beam or ion))) same (rotat\$4 or mov\$4 or inclin \$3)	JPO	OR	ON	2010/12/06 12:27
S134	1	jp-2005120393-\$.did.	DERWENT	OR	ON	2010/12/06 12:28
S135	1	2005-327215.NRAN.	DERWENT	ADJ	ON	2010/12/06 12:28
S136	19	(gcib or (gas with cluster with (beam or ion))) same (rotat\$4 or mov\$4 or inclin \$3)	DERWENT	OR	ON	2010/12/06 12:31
S137	1	2006-409147.NRAN.	DERWENT	ADJ	ON	2010/12/06 12:40

S138	1	2006-437170.NRAN.	DERWENT	ADJ	ON	2010/12/06 12:43
S139	29	hitachi.as. and (gas with cluster with (ion or beam))	US-PGPUB; USPAT	OR	ON	2010/12/06 12:46
S140	11	("20030021908"   "4485592"   "4559096"   "5302434"   "5459326"   "6068891"   "6183828"   "6251835"   "6660340"   "6743481").PN. OR ("7064927").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/12/06 12:58
S141	1	10/573942.app.	US-PGPUB; USPAT	ADJ	ON	2010/12/06 15:13
S142	1	10/573942.app.	US-PGPUB; USPAT	ADJ	ON	2011/07/08 07:53
S143	3	(("20080315128") or ("20100230616") or ("20100207041")).PN.	US-PGPUB; USPAT	OR	OFF	2011/07/08 08:53
S144	1244	(gas with cluster with beam)	US-PGPUB; USPAT	ADJ	ON	2011/07/08 11:53
S145	141	(gas with cluster with beam)	JPO	ADJ	ON	2011/07/08 11:53
S146	11	(gas with cluster with beam) and angle	JPO	ADJ	ON	2011/07/08 11:53

## **EAST Search History (Interference)**

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## 7/11/2011 11:55:10 AM

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